

Title (en)
LASER MACHINING SYSTEM

Title (de)
LASERBEARBEITUNGSSYSTEM

Title (fr)
SYSTÈME D'USINAGE AU LASER

Publication
EP 3860798 A1 20210811 (DE)

Application
EP 19778451 A 20190920

Priority
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• EP 2019075349 W 20190920

Abstract (en)
[origin: WO2020069885A1] A laser machining system (100) for creating a laser beam with a linear beam cross section with a short axis and, perpendicular thereto, a long axis in a machining plane (105) comprises a laser beam source (102) for creating a raw laser beam, a beam widening system (120), connected downstream of the laser beam source, for receiving the raw laser beam and for creating a widened laser beam, and a homogenisation system, connected downstream of the beam widening system, for receiving the widened laser beam and for creating a laser beam that is homogenised with respect to the light intensity distribution and has a linear beam cross section in the machining plane. The homogenisation system has a first homogenisation arrangement for homogenisation along the short axis and a second homogenisation arrangement for homogenisation along the long axis, wherein each of the homogenisation arrangements has optical elements (140-1, 140-2) for splitting the laser beam into a plurality of partial beams and a condenser system (150-1, 150-2) for superposing the partial beams in a superposing plane. The first homogenisation arrangement has a first condenser system (150-1) with at least one first mirror (150-1A, 150-1B) and the second homogenisation arrangement has a second condenser system (150-2) with at least one second mirror (150-2A, 150-2B).

IPC 8 full level
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